

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0074] with the following amended paragraph:

[0074] Four brackets 56 secured to the chassis 14, near its four corners, allow receiving the motors 84 of the steering assembly 20. A casing 58 is provided to receive a central ~~controller~~ control system 312 (see Figure 16). The casing 58 is mounted to the iron angles 32 via two precision ground ways 60. The ~~body 12 includes a communication~~ central control system 312 is secured to the iron angles 32 via a bracket 64. Finally, two batteries 66 are secured to the iron angles 32 via brackets. It is to be noted that the sets of batteries 66 have been mounted to the chassis 14 so as to be positioned as low as possible, yielding a low center of gravity for the body 12. Of course, the number of batteries 66 may vary. The access to the sets of batteries 66 and to the central controller 312 is facilitated by the configuration of the iron angles 32, ground ways 60, and lower shell portion 82.

Please replace paragraph [0079] with the following amended paragraph:

[0079] A rectangular cover plate 70 (i.e. mounting plate) is secured on top of the columns 68. The plate 70 allows receiving selected equipments (not shown) allowing the robot 10 to achieve specific tasks. Two handles 72 are also secured to the columns 68. The columns 68 also support two interface panels 74-76. A first interface panel 74 includes connections allowing connecting external modules on the CAN coordination buses 302-304 (see Figure 16), power supply (5V, 12V), video input ports (4), audio jacks (in-out), RS-232 jacks. A second interface panel 76 includes the external power supply connector, main power switch, reset button, and status leds. The first interface panel 74 includes

connecting means, such as video connectors 432, USB ports 434, and other connectors to connect equipments (not shown) to be mounted on the plate 70.

Please replace paragraph [0096] with the following amended paragraph:

[0096] As can be better seen in Figure 7, the drive assembly 24 includes a mounting assembly 110, the driving wheel's actuator 112, the track-tensioning assembly driving mechanism 114, and the driving wheel support structure 116.

Please replace paragraph [00114] with the following amended paragraph:

[00114] Contacts between the track tensioning assembly 28 and the drive system 24 are achieved via the inner tooth gear 182 (see Figure 14) that is radially fastened to a smooth part 218, which is part of the main support 198, using screws 219 or other fasteners. The main support ~~198-196~~ also includes a smooth part 220. Circular friction reducing disks 222 and 224 are mounted to the smooth parts 218 and 220, respectively. The inner surfaces of the circular friction reducing disk 222-224 rest respectively on the outer surface 128-130 (see Figure 8).

Please replace paragraph [00146] with the following amended paragraph:

[00146] The micro-controller 522 is configured to manage the electrical consumption of the robot 10 by selecting which of the batteries 66 to use, measure the voltage and current in the robot 10 for computing the instantaneous power at every computing cycle. At any time, the micro-controller 522 can receive a query from the central control system ~~322~~ 312 via the coordination bus 304 to provide the power level of any battery 66 or the instantaneous power, and to acknowledge if the switches are closed. Integrating instantaneous power over time by the micro-controller 522 gives the energy consumption.

Please replace paragraph [00154] with the following amended paragraph:



[00154] Of course, the configuration of the energizing system ~~396~~ 306 may vary without departing from the spirit and nature of the present invention.

Please replace paragraph [00161] with the following amended paragraph:

[00161] The locomotion controller 308 is connected to the two communication buses 302-304 via respective bus interfaces 338-340. As mentioned hereinabove, the coordination bus 304 (see Figure 16) manages communication among all modules of the platform 10. Indeed, the central control system 312 can send commands pertaining to the angular position, the speed, and the acceleration, to the locomotion controllers 308. The synchronisation bus ~~338~~ 302 manages the synchronisation of the legs 18. The locomotion controller uses the synchronisation bus 302 for the simultaneous automatic control of the motors 84, 132, and 184 of the four legs 18.